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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/933,256	08/20/2001	Ramesh B. Jayaraman	018881.0123	5271
24735	7590	12/29/2004	EXAMINER	
BAKER BOTTS LLP C/O INTELLECTUAL PROPERTY DEPARTMENT THE WARNER, SUITE 1300 1299 PENNSYLVANIA AVE, NW WASHINGTON, DC 20004-2400			BARRETT, THOMAS C	
			ART UNIT	PAPER NUMBER
			3738	
DATE MAILED: 12/29/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/933,256	<b>Applicant(s)</b> JAYARAMAN ET AL.	
	<b>Examiner</b> Thomas C. Barrett	<b>Art Unit</b> 3738	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 29 September 2004.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 13, 14, 16-20 and 50-55 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 13, 14 and 16-20 is/are rejected.
- 7) ☒ Claim(s) 50-55 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

**DETAILED ACTION*****Response to Arguments***

Applicant's arguments filed September 29, 2004 have been fully considered but they are not persuasive.

In response to applicant's arguments, the recitation "vascular graft" has not been given patentable weight because the recitation occurs in the preamble. A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951). Even if the recitation "vascular graft" is given patentable weight, the term "comprising" permits additional elements, i.e. a stent. In addition the "membrane layer" can be a coating.

The Applicant argues, "Although a permeability of about "0 cc/cm<sup>2</sup>/min" is very low, Chouinard does not describe the combination of the graft and membrane layer as impermeable." However, the specification of the present invention discloses, "Coated textiles according to the invention have improved impermeability (i.e., are less prone to allow leakage of fluids, such as serum or water, through the body of the graft, both long and short term)." Therefore, the present invention acknowledges that there are degrees of impermeability, especially dependent on time and type of fluid. The present invention also states, "Because polyurethanes have very low water permeability, they can effectively seal a textile." Chouinard discloses the use of polyurethanes for coating the

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graft, so therefore "effectively seals the textile", or makes it impermeable. Furthermore, about "0 cc/cm<sup>2</sup>/min" anticipates "impermeable" because "0 cc/cm<sup>2</sup>/min" includes nearly **and** exactly 0 cc/cm<sup>2</sup>/min.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 13-14 and 16-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chouinard (6,156,064) in view of Thoratec (Thoralon). Chouinard discloses an impermeable vascular graft comprising: a PET (polyethyleneterephthalate) knit core coated and embedded with a polymer (col. 8, line 41- col. 10, line 2). Chouinard fails to disclose the core coated with Thoralon, a coating that comprises polyurethane urea blended with a siloxane containing a surface-modifying additive. Thoralon has a soft segment comprising PTMO and a hard segment comprising ethylene diamine, as admitted by the Applicant. Thoratec teaches the use of Thoralon as a biomaterial, which minimizes clotting and inflammatory responses. It would have been obvious to one of ordinary skill in the art to combine the teaching of Thoralon as a biomaterial, as taught by Thoratec, to a vascular graft comprising a PET as per Chouinard, in order to minimize clotting and inflammatory responses. Furthermore,

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Chouinard in view of Thoratec fails to disclose the soft segment having a molecular weight of about 2,000 g/mole.

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art a coating with a soft segment having a molecular weight of about 2,000 g/mole. Applicant has not disclosed that the molecular weight provides an advantage, is used for a particular purpose, or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected Applicant's invention to perform equally well with the molecular weight of the soft segment of a Thoralon coating because the applicant admits it to be a preferred embodiment. Therefore, it would have been obvious to one of ordinary skill in the art to modify the vascular graft comprising a PET and polyurethane coating to obtain the invention as specified in claim 17.

### ***Allowable Subject Matter***

Claims 50-55 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.


### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thomas C. Barrett whose telephone number is (571) 272-4746. The examiner can normally be reached Tuesday-Friday between 9:00 A.M. and 6:00 P.M.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Corrine McDermott can be reached on (571) 272-4754. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9306 for regular communications.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'Thomas Barrett', with a stylized, cursive script.

Thomas Barrett